



Ø BEAT



COLO. SPRINGS,
COLORADO

JANUARY 1981

The Way It Was . . . Tesla

PIONEERS OF RADIO: NIKOLA TESLA

Tesla is best known (by those who know of him at all) as the genius who conceived, invented, designed and put into operation our alternating current electrical system, without which much of the Electrical Age would never have come into being. That invention — or series of inventions — freed the world from dependence on direct current, which limited the distance that power could be transmitted to a mile or two from the generating station.

As for grandiose projects his generation in 1899 of more than 12 million volts at his Colorado Springs laboratory was unmatched for more than 70 years. Experimenting with wireless power transmission, he lighted a bank of 200 lamps (usually about 10 KW) 26 miles from the Colorado Springs installation. That feat has yet to be duplicated:

These fantastic accomplishments have overshadowed his very real work in the radio field, yet he was one of the first to work with high frequencies, and many engineers know him only by that first radio-frequency transformer, the Tesla coil. That "coil" was invented in 1891. In 1893, speaking to the members of the Franklin Institute in Philadelphia he discussed electrical resonance, among other subjects. Pointing out that if the inductive and capacitive reactance in the circuit were such as to cancel each other resonance would be attained and current would increase without a theoretical limit. He explained that it was fortunate that pure resonance could not be produced (because of resistance in the circuit).

In 1899 Tesla staged a demonstration of radio remote control in Madison Square Garden, New York City. He maneuvered a three-foot-long model boat in a large tank, starting, stopping, reversing and steering it in response to requests from members of the audience.

The Madison Square Garden transmissions were spark. But in his studies of high frequencies, Tesla pioneered two other types of transmitters that later became commercial successes in other hands. Tesla's alternators reached 10 kilohertz. Later these alternators were made by General Electric and became the standard high-power transmitters for transatlantic and other long-distance communication, until displaced by tube transmitters.

With the withdrawal of support by Tesla's financial backer — it is said because he found that Tesla was more interested in transmission of wireless power than wireless communication — this ended his radio work. He died in semi-poverty in 1943.

Radio Electronics, Oct. 80

Frank, WBØPAJ

CHRISTMAS PARTY — A GREAT TIME

For the 53 people who signed up for the party, the Iron Springs Chateau put on quite an evening, with a delicious buffet and lots of fun entertainment.

After much conversation and eats, we all adjourned to the upstairs play house where we got in tune for the melodrama. (I think I heard some familiar hisses from our meetings too). The group harmonized well in some songs, and got into the spirit for the play, which we heckled appropriately. Further entertainment in the lounge after the play was enjoyed by many.

It was a pleasure to have the time to see everyone all duded up and having some good times. We even had some members from Pueblo come up for the evening. (See special board minutes). I hope that the party was enjoyable for all and I am looking forward to next year already.

P.P.R.A.A. DIRECTORS

PRESIDENT	Dave Vierling NØDV 2511 N. Tejon 80907	473-0293
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Board Member	*Al Bailey ADØZ 2715 Ateza Ln. 80917	597-8514

(* Two-year board terms began October 1980)

ZERO BEAT is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., Colorado Springs, Colorado. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles is the 21st of the month. Classifieds accepted anytime.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of each month at Sabin Jr. High School, 3605 N. Carefree Circle at 7:30 p.m. and all amateurs and interested parties are invited to attend.

Editor: Don Lohse KBØKQ, 1410 E. LaSalle, Colorado Springs, CO 80907 635-7469

DECEMBER 1980 PIKES PEAK RADIO AMATEUR ASSOCIATION MINUTES

The December meeting was called to order at 7:30 P.M. December 10, 1980 at Sabin Jr. High by club president, Dave Vierling. The 49 members present introduced themselves and briefly explained their different interests in the hobby.

First order of business: A great big THANK YOU to Don Lohse and Doug Moloney for their efforts toward the Christmas Party. Everyone had a super time, THANKS!!!

The treasury report by Doug Moloney was rather involved, but the bottom line showed a balance of \$209.82. A little sparse. Mention was made of the fact that it is dues time again. That should fatten up the "Kitty".

The education committee report by Don Lohse told us that we have 17 hams in the upgrade classes. They started December 2nd and are meeting every Tuesday. Wonder of wonders, they are all going F.B. with code on their own so the code night has been deleted.

Don also expressed his thanks to all for their contributions to Zero Beat.

Thanks to Biz WØHCO for efforts in the publicity department. Be sure to keep him informed of up coming activities.

Chuck WØRNT said he will pick up the CCARC call books at the Jan. 24th meeting of that group.

Doug Moloney announced the up coming wheelchair basketball game - December 12th 7 P.M., between the ham Hawks (us) and the Steam Rollers (them). (The Steam Rollers killed us).

Congratulations to: AAØL, KAØGJO, NØAVY and NØDV for their first place, Multi opp., Colo. in the 1980 ARRL Sept. VHF QSO party, well done!

The Pueblo club invited us to attend their Christmas party which will be December 23rd at Pueblo West. Contact Bob or Olie Schriener for details.

Hammy of the month award this month went to yours truly. As you know, this award is presented to hams who either perform an outstanding service to Amateur Radio or the club - or for screwing up! To those of you who I told to come to the Christmas Party on Friday, December 5th, my most sincere apologies!!!

The December program was home brew night. There were twenty two very, very impressive entries. Dave Vierling's memory keyer (that remembers everything) won first place. Less Borst's antenna tuner (with its homemade capacitors) took second place; congrats, Men!

Dave Vierling brought up the fact that swap-fest time is rolling around again so start thinking about who to hit up for donations.

Don't forget the board meeting night has been changed to the Monday night following the regular club meeting.

Also, a reminder about the Saturday morning breakfasts at Kings Country Restaurant - Fountain and Circle - Every Saturday about 8 A.M. See you there!

Next months program will be all about printed circuit boards.

Respectfully submitted,
Bill, KFØW

FOR SALE HW 8 and antenna tuner. Biz WØHCO, 598-5272 after 8.

TS 180 Service Manual - New - \$5. WA7QYI Charley, 597-4769.

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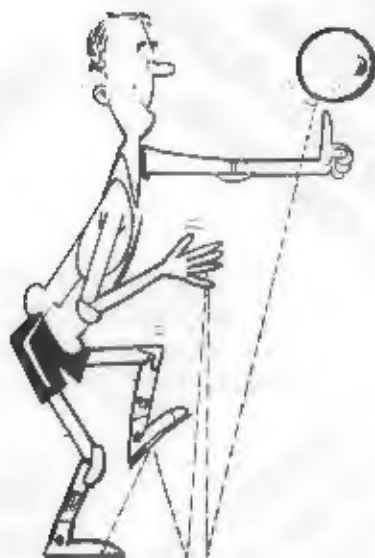
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THIRD PARTY AGREEMENTS

If you aren't up on which DX can handle third party traffic — here's an updated list from the FCC.

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Jordan	Liberia
Mexico	Nicaragua
Panama	Paraguay
Peru	Trinidad & Tobago
Uruguay	Venezuela

There is also a special agreement with the International Telecommunications Union (ITU) to permit third party communication with their station 4U1ITU in Geneva, Switzerland.

SPECIAL EMERGENCY BOARD MINUTES

At times there is business of such magnitude that a special meeting of the board must be called. This was the case on December 6, 1980 at the Xmas Party. After a quorum was confirmed, the following matter was discussed: All board members had agreed to make phone calls to members to remind them of the date and time of the party. This plan was carried out, with one exception. This board member got crossed up, and gave out the date as December 5, not 6. After lengthy discussion, (10 seconds) it was decided to award the Turkey of the Month Hammy to Bill Allen, NØPATE. Congratulations Bill, for giving us a deserving candidate for the award.

Typesetting courtesy Letter Setters

STEAMROLLERS SLICE UP HAMS

The Steamrollers wheelchair basketball team did another great job this year of really putting it to the PPRAA team (and I use that term team loosely). The Steamrollers score was so high that it took 2 HP calculators (both people and machines) to add it up.

Through some creative scorekeeping by the officials, we were in the game only at the beginning of each quarter, when we got our handicap of between 15 and 30 points (sad huh). Even a last minute running lay up by WØØSDW rolled off the rim. Oh well, it was for a real good cause and we all had a great time. I think only one or two of us lost most of our thumb skin to the wheelchairs, and a muscle may have bitten the dust in a few of our bodies too.

A great big thanks to all of those who both played and cheered. It makes it a lot more fun when a lot of people show up. I think the Steamrollers challenged us again for next year (do you suppose we'll ever learn?) and we better go into training now, I don't see how we could duplicate this feat again without a lot of practice. Thanks again to all.

FOR SALE Drake — TR/DR 7, power supply, speaker, MN 4 matcher, Heath dry load/watt meter, Hygain 18 AVT/WB, Hygain mobile antenna with 10/20 meter coils, bumper mount, Drake TR/DR 7 mobile mount (never installed), reel type dipole w/coax and bag. As set only, \$2000/offer. Paul Thomas WØCCGN, 597-0596 after 6:00.

Wanted: Yaesu FL 2100B, external VFO. Faye Herren, KBØQI, 632-4574.

6 Meter Net-50.55 Tuesday 7:00 p.m. Louie WØPCZ.

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December Board Minutes

The meeting was held at Dave Vierling's house at 7:30 p.m. on December 15, 1980. Those present were Dave, NØDV; Les Borst, WØGTA; Biz Wichy, WØHCO; Ray Uberecken, AAØL; Don Lohse, KBØKQ; and Charleen Colvin, WØYOB.

The swapfest was discussed and it was decided to try for either April 12 or 26 at Peterson Air Force Base. Ken Holloway will check to see which date is open. It was also decided to let the Pikes Peak FM Association handle the food concession again, if they want it. At the next club meeting the possibility of holding a bake sale as an additional money maker will be discussed.

Les Borst asked for some suggestions for raffle prizes. If anyone has a suggestion, talk to Les.

Programs for the coming year were discussed and we have plans through June. If anyone knows of a good program you feel would interest our members, please give the suggestion to any Board member.

Items for future Zero Beats were mentioned with some interesting articles already submitted. Other considerations were mentioned such as a calendar of events being published, and a questionnaire to discover interests of members.

There being no further business, the meeting adjourned. The next Board meeting will be held at Les Borst's, 2542 E. Bijou, at 7:30 p.m. on January 19, 1981.

Respectfully Submitted,
Charleen WØYOB

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CONTEST GROUP MEETING

The much rumored Colorado Springs Contest Cl (or whatever you want to call it) will have its first meeting on Jan. 11, 2:00 p.m. at Steve's (NØST) house, 4696 Ranch Dr., Colorado Springs. Even if you are only mildly interested in contesting, why not show up and put in your two cents worth. We will probably run the whole gamut from propagation studies to philosophy with a little story telling to boot. For info on directions call 598-3994 evenings or 146.52 for talk in to Steve's house on Sunday.

C U there
Steve NØST

WANTED: transceiver or small transmitter for novice.

FOR SALE OR TRADE: Hammarlund SP-600-JX general coverage receiver (0.54-54.0 Mc) Call Larry at 596-8883 after 6 PM.

BEFORE YOU SEND OFF that order for components, try me! Large Inventory. WA4UPD, Red Bristol, 596-4574.

Tempo 1 — AC & DC supplies. Dave WØSDW 574-2224.

FOR SALE: National NCX3 transceiver. 3 bands, 80, 40 — 20 Good condition. \$275 offer. Mike Hancock WØWUD, 632-6212.

FOR SALE: Hustler HF Mobile Ant. MO2 with 10, 15, 20, 40 meter resonators, MFJ Deluxe Versa Tuner II Model 949, Watt Meter — SWR Meter, Dummy Load, 2 coax connectors, Balun — Radom Wire. Best Offer. Frank, NØBOV, 472-6150.

de the President

Happy 1981! Hope you all had a good 1980 Ham Radio-wise, and that this year will be even better. Mother Nature has been good enough to supply us with a sunspot maximum and all the wonders it provides. All we have to do is take advantage of it. To this end I'm making my ham New Year's resolution to try to finish up my DXCC on 10 meters. I'm not letting the rest of you off either. Be prepared to stand up at the next club meeting and let us know what your resolution is this year. It'll be interesting to hear.

I would like to take this opportunity on behalf of the PPRAA to thank the Colorado Steamrollers Basketball team for a very enjoyable game on Dec. 12. I'm sure I speak for all of us in saying your team is **much** improved over last year. The "Ham-hocks" however have much work to do. Let's try it again in a year or so.

I've noticed of late that there are many newcomers to the area that have an interest in Amateur Radio. Please don't feel that the Pikes Peak Radio Amateur Association meetings are only for club members. One and all are invited to attend and join in our activities. Your interest is the only prerequisite. We try to have a good program each month for you, and are also engaged in community activities so come out and visit.

There has been much discussion of a "HF Happening" involving the club and whoever else is interested in a giant slow speed cw one time only get together on 15 meters. I'd like to see it on a Saturday night in early February on 21.125. Should be a lot of fun and one big mess, but who cares? How about 0400Z February 1 (Jan. 31 evening local)? I'll bring it up again at the meeting, but meanwhile limber up your HF rigs and straight keys.

VHF Sweepstakes is January 17 and 18. Again AAOL will launch an all out (?) effort from the Black Forest. Why not plan on dropping by to say hello and possibly work a station or two. Always an enjoyable event.



Lastly, if you remember Al's (ADØZ) excellent program last year, you'll be happy to know he is going to do another this month on how to make a circuit board. Should be a good one. See you there.

73's

Dave NØDV

SPECIAL NOTE

News comes from Denver that the FCC has changed the Amateur Exam schedule a little again. Tests will now be given only the second and fourth Wednesdays of the month. Code will still be at 9:00 a.m. sharp, but the story is now that Theory exams will be given at 10:00 a.m. **only**. This means no more late morning trips.

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Additional Names _____ Calls _____

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MEETING NOTICE

The January meeting of the Pikes Peak Radio Amateur Association will be held on Wednesday, January 14, at 7:30 P.M. at Sabin Jr. High. The program will be on Printed Circuit Boards, their design and production, and Al Bailey ADØZ will speak. All members and interested guests are encouraged to attend.

THANKS . . .

A special thanks and an apology to Don Chatelain WDØBSZ for the article on Traffic last month. Somewhere in the mess, I lost who did the article and didn't credit it. I want to make sure that everyone who contributes an article to Zero Beat gets credit for it, so that the members know who is helping to make our newsletter worth the 15¢ postage.



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